

DE 298 09 559 U1

SN 10/589,367

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Our ref.: Gbm 303/135-DE

Munich
05/27/98

SEAL OR CLOSURE LABEL

The present invention relates to a seal or closure label having an at least regionally adhesive base layer.

Security aspects currently have enormously large significance in nearly all areas of life and in products of all types as well as in their packaging. The user of a product is always to be able to recognize the product uniquely as an original, i.e., the product must differ clearly and reliably from possible counterfeits or copies. In addition to this proof of authenticity, it is extremely desirable for it to be immediately recognizable for the user whether the product or its package is originally sealed or has already been opened once or multiple times.

It is noted here only as an example that in many companies in the business of production or providing services, theft from packages for products ready for sale or shipping has been shown to be a serious and costly problem, internal company theft unfortunately also playing an increasing role.

In the past, exertions of greatly varying types have been undertaken, with only partial success, to ensure an originality closure of products or their packages through seal or closure labels. However, it was

possible very easily to close a seal or closure label which has been opened once, for example, after unauthorized removal of products from a package, without it being recognizable in any form that the product or its package had already been opened once or multiple times. This has been shown to be a pronounced disadvantage until now, however, particularly if the user is to be able to open and reclose a product or its package multiple times, but awareness of the first opening was desirable or even absolutely required because of product-specific reasons.

The above-mentioned set of problems has gained significance recently above all before the background that in the course of increased efforts to consider environmental protection concerns adequately, complex packages made of glass, cardboard, or plastic are frequently dispensed with, so that the products themselves must be protected using a corresponding seal or closure label.

The above problems and inadequacies occur in this case in many areas of application for seal or closure labels. One considers in this connection, in addition to the areas of application described above, the examples of seal or closure labels for pharmaceutical products in their packages, seal or closure labels for the personal possessions of prisoners and/or for furnishings in the intake area of prisoners in prisons, seal or closure labels for doors or trunks of containers or vehicles, respectively, of visitors and suppliers of prisons, seal or closure labels for the storage and transport of new vehicles, and seal or closure labels for the safekeeping of secured objects and vehicles. This selection of relevant areas of application for seal or closure labels alone makes it clear that the above problems and inadequacies require

a cost-effective and reliable solution which is easy to handle.

The present invention is therefore based on the object of providing a seal or closure label of the type cited at the beginning, which, after the opening of a product or a package, allows reclosure of this product or its package, but makes it irreversibly known after the first opening that the product or the package has already been opened once or multiple times. Furthermore, the present invention has the object that the product or its package is always uniquely recognizable as an original, i.e., the product may be clearly and reliably differentiated from possible counterfeits or copies. As a further object, a seal or closure label is to be provided by the present invention, which reliably protects from unrecognized engagements and manipulations. Optimum storage or transport security is also to be ensured by the present invention in this way. Accordingly, the present invention is based on the further object of providing a seal or closure label of the type cited at the beginning, which gives the receiver the security of obtaining a flawless and originally packed product.

This object is achieved in the seal or closure label of the type cited at the beginning in that the base layer has two base sections and a web connecting the two base sections. The two base sections, which may contain text, graphic illustrations, or originality identifiers, may be attached securely to a product to be protected in such a way that the web connecting the two base sections covers a cap or an opening flap. The opening flap may only be opened and the product used when the web connecting the two base sections is torn.

The two base sections are preferably coated using adhesive, which is in turn preferably a pressure-sensitive adhesive. It is especially advantageous if a permanent adhesive is used as the pressure-sensitive adhesive, which produces an especially strong bond between the two base sections and the object to be labeled. In this way, the two base sections are practically not removable from the product without damaging the base sections.

The web may be implemented as nonadhesive. The web section may thus be removed and discarded after the authorized opening of the product. Interference when reclosing the closure flap caused by the torn web section is avoided in this way. For this purpose, the adhesive is advantageously applied selectively to the base sections, the area of the web being left out of the adhesive application.

However, from aspects of manufacturing technology, an embodiment alternative in which the adhesive is applied to the entire area of the overall seal or closure label and only the area of the web is covered by a layer canceling out the adhesive effect is advantageous. In the production of this embodiment variation, base layers coated over the entire area with adhesive may be used, and the relatively complex selective application of the adhesive is avoided.

According to an advantageous embodiment, the base layer has a tearable material. For this purpose, papers or also cast films may be used as materials.

If tear-resistant films, such as films made of polyethylene or polypropylene, are used, it has been shown to be advantageous to provide at least one perforation line in the web. Preferably, two

perforation lines are situated, which are advantageously situated near the two ends of the web, so that they are torn through when the closure flap is opened. If only one of the two perforations tears when the closure flap is opened, the partially torn web section may then be removed by hand along the other perforation line.

It has also been shown to be advantageous to situate a preferably nonadhesive grip tab on the web, in order to be able to tear off the web section to open the product using this grip tab.

An embodiment in which at least one of the base sections, but preferably both base sections, are provided with security punches has been shown to be especially advantageous from security aspects. The security punches cause the base sections to be split into individual small areas if the attempt is made to remove the base sections. Producing the original state after a (dishonest) opening attempt is therefore practically precluded.

However, according to another embodiment variation, at least one color layer is situated under at least one of the base sections, which adheres with regionally differing adhesion force to the base layer and/or to a product to be provided with the seal or closure label, the base layer being transparent. If the base section provided with the color layer is removed from the object to which the seal or closure label adheres, the color layer remains partially attached to the base layer because of the regionally differing adhesion force and partially remains on the base section, so that the color layer is separated into two parts. The dishonest opening attempt is thus irreversibly

recognizable, since precise reproduction of the original state is practically precluded.

The present invention is explained in greater detail in the following on the basis of an exemplary embodiment schematically illustrated in the figures.

Figure 1: shows the seal or closure label according to the present invention in a top view.

Figure 2: shows a product container which is provided with the seal or closure label seen in a perspective view from the front.

Figure 3: shows the product container from Figure 2 seen from the rear.

The seal or closure label shown in a top view in Figure 1 consists of a base layer 1, which comprises two base sections 1a and 1b and a web 1c which connects the two base sections 1a and 1b. The web has two parallel perforation lines 2 and 3 running transversely to the longitudinal direction of the web. Furthermore, the web 1c is implemented in the form of a grip tab 4. The two base sections 1a and 1b are used as print carriers for inscriptions, drawings, originality seals, and the like, which is only schematically indicated in the figure by the repetition of the word "text". The base layer 1 shown in Figure 1 is self-adhesive on its bottom side in the areas 1a and 1b, while the web 1c is implemented as nonadhesive. The web 1c connecting the two base sections 1a and 1b is significantly narrower than the two base sections.

Figure 2 shows a perspective illustration of the label according to Figure 1 applied to an object 5. The object 5 is a box which is closed by a snap closure cap

6. The base section 1b of the seal or closure label according to the present invention is stuck to the front of the box 5. The base section 1a is located on the rear (see Figure 3). The label is situated so that the web 1c connecting the two base sections 1a and 1b runs over the closure flap 6 of the box 5. To open the box 5, the web 1c may be gripped using the grip tab 4, due to which the perforation lines 2 and 3 tear, so that the web 1c may be removed. The closure 6 may then be opened and possibly closed again. However, it is also possible to open the closure flap directly without using the grip tab 4, through which the web 1c will certainly tear itself along the perforation lines or at least along one of the two perforation lines 2 and 3. The first opening of the box 5 is thus irreversibly visible.

A color layer is provided between the base layer 1 of the base sections 1a and 1b and the adhesive layer applied thereto, which adheres with regionally differing adhesion force to the base layer 1 and to the adhesive layer. When one of the two transparent base layers is removed, the color layer is separated, i.e., a part of the color layer follows the movement of the removed base layer material, while another part of the color layer remains with the adhesive layer on the container 5. The attempt to dishonestly open the container is irreversibly visible.

Using the label according to the present invention, it is possible to effectively seal the closure flap 6 situated on the narrow side of the container 5, although the narrow side is so small that a typical sealing label covering the closure flap 6 may not be applied there.

It is obvious that the two base sections 1a and 1b, notwithstanding the exemplary embodiment shown in Figures 1 through 3, may have any arbitrary contour depending on the intended use and shape of the container to be labeled.

CLAIMS

1. A seal or closure label having an at least partially adhesive base layer (1), characterized in that the base layer (1) has two base sections (1a, 1b) and a web (1c) connecting the two base sections (1a, 1b).
2. The seal or closure label according to claim 1, characterized in that the two base sections (1a, 1b) are coated with adhesive.
3. The seal or closure label according to claim 2, characterized in that the adhesive is a pressure-sensitive adhesive.
4. The seal or closure label according to claim 2 or 3, characterized in that the adhesive is a permanent adhesive.
5. The seal or closure label according to one of the preceding claims, characterized in that the web (1c) is at least regionally nonadhesive.
6. The seal or closure label according to claim 5, characterized in that the web (1c) is at least regionally free of adhesive.
7. The seal or closure label according to claim 5, characterized in that the web (1c) is coated with adhesive and the adhesive layer is at least partially covered with a layer which cancels the adhesive effect.
8. The seal or closure label according to one of the preceding claims, characterized in that the base layer (1) has a tearable material.

9. The seal or closure label according to one of the preceding claims, characterized in that the base layer (1) is made of paper.
10. The seal or closure label according to claim 8, characterized in that the base layer (1) is a cast film.
11. The seal or closure label according to one of claims 1 through 7, characterized in that the base layer (1) is a tear-resistant film.
12. The seal or closure label according to one of the preceding claims, characterized in that the web (1c) has at least one perforation (2, 3).
13. The seal or closure label according to claim 12, characterized in that the web (1c) has two perforation lines (2, 3).
14. The seal or closure label according to claim 13, characterized in that the two perforation lines (2, 3) are situated in proximity to the two ends of the web (1c).
15. The seal or closure label according to one of the preceding claims, characterized in that the web (1c) has a grip tab (4).
16. The seal or closure label according to claim 15, characterized in that the grip tab (4) is nonadhesive.
17. The seal or closure label according to one of the preceding claims, characterized in that at least one of the base sections (1a, 1b) has security punches.

18. The seal or closure label according to one of the preceding claims, characterized in that at least one color layer, which adheres with regionally differing adhesion force to the base layer (1) and/or to an object (5) to be provided with the seal or closure label, is situated under at least one of the base sections (1a, 1b), and the base layer (1) is transparent.
19. A container having a closure flap (6), characterized in that a seal or closure label, which has two base sections (1a, 1b) and a web (1c) connecting the two base sections (1a, 1b) is situated on the container (5), the web (1c) lying over the closure flap (6).
20. The container according to claim 19, characterized in that the two base sections (1a, 1b) are situated on two diametrically opposite sides of the container (5), and the closure flap (6) covered by the web (1c) lies on a face of the container (5) connecting the two diametrically opposite sides.
21. The container according to claim 20, characterized in that the two diametrically opposite sides of the container, on which the base sections (1a, 1b) are situated, are parallel.
22. The container according to one of claims 19 to 21, characterized in that the closure flap (6) is situated on a narrow side of the container (5).